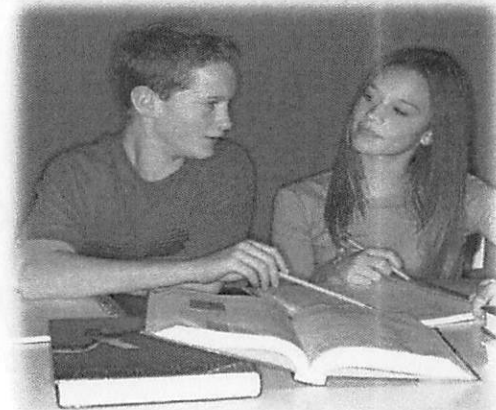


Level 3: Proficient Critical Attributes

- ▶ The teacher uses open-ended questions, inviting students to think and/or offer multiple possible answers.
- ▶ The teacher makes effective use of wait time.
- ▶ The teacher builds on and uses student responses to questions effectively.
- ▶ Discussions enable students to talk to one another, without ongoing mediation by the teacher.
- ▶ The teacher calls on most students, even those who don't initially volunteer.
- ▶ Many students actively engage in the discussion.

Level 2: Basic Critical Attributes

- ▶ The teacher frames some questions designed to promote student thinking, but only a few students are involved.
- ▶ The teacher invites students to respond directly to one another's ideas, but few students respond.
- ▶ The teacher calls on many students, but only a small number actually participate in discussion.



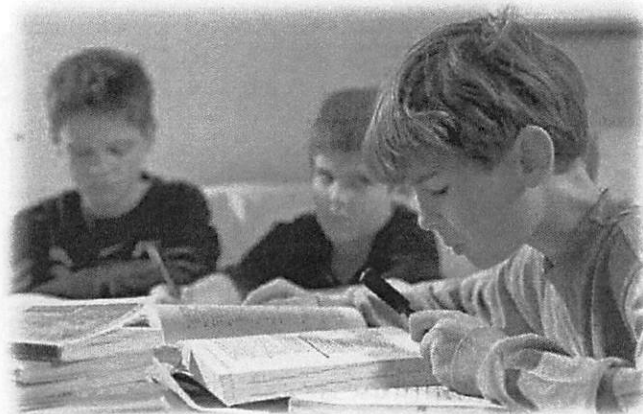
Level 1: Unsatisfactory Critical Attributes

- ▶ Questions are rapid-fire and convergent, with single correct answers.
- ▶ Questions do not invite student thinking.
- ▶ All discussion is between teacher and students; students are not invited to speak directly to one another.
- ▶ A few students dominate the discussion.

Level 4 Distinguished Critical Attributes

In addition to the characteristics of Proficient

- ▶ Students initiate higher-order questions.
- ▶ Students extend the discussion, enriching it.
- ▶ Students invite comments from their classmates during a discussion.



Bloom's Taxonomy

Bloom's Taxonomy provides an important framework for teachers to use to focus on higher order thinking. By providing a hierarchy of levels, this taxonomy can assist teachers in designing performance tasks, crafting questions for conferring with students, and providing feedback on student work

This resource is divided into different levels each with **Keywords** that exemplify the level and questions that focus on that same critical thinking level. **Questions for Critical Thinking** can be used in the classroom to develop all levels of thinking within the cognitive domain. The results will be improved attention to detail, increased comprehension and expanded problem solving skills. Use the keywords as guides to structuring questions and tasks. Finish the Questions with content appropriate to the learner. **Assessment** can be used to help guide culminating projects. The six levels are:

Level I Knowledge

Level II Comprehension

Level III Application

Level IV Analysis

Level V Synthesis

Level VI Evaluation

Blooms Level I: Knowledge

Exhibits memory of previously learned material by recalling fundamental facts, terms, basic concepts and answers about the selection.

Keywords:

who, what, why, when, omit, where, which, choose, find, how, define, label, show, spell, list, match, name, relate, tell, recall, select

Questions:

- What is...? • Can you select? • Where is...? • When did ____ happen?
- Who were the main...? • Which one...? • Why did...? • How would you describe...?
- When did...? • Can you recall...? • Who was...? • How would you explain...?
- How did ____ happen...? • Can you list the three..? • How is...?
- How would you show...?

Assessment:

Match character names with pictures of the characters.

Match statements with the character who said them.

List the main characteristics of one of the main characters in a WANTED poster.

Arrange scrambled story pictures and/or scrambled story sentences in sequential order.

Recall details about the setting by creating a picture of where a part of the story took place.

Blooms Level II: Comprehension

Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptors and stating main ideas.

Keywords: compare, contrast, demonstrate, interpret, explain, extend, illustrate, infer, outline, relate, rephrase, translate, summarize, show, classify

Questions:

- How would you classify the type of...? • How would you compare...? contrast...?
- Will you state or interpret in your own words...?
- How would you rephrase the meaning?
- What facts or ideas show...? • What is the main idea of?
- Which statements support...? • Which is the best answer...?
- What can you say about ...? • How would you summarize... ?
- Can you explain what is happening...? • What is meant by...?

Assessment:

Interpret pictures of scenes from the story or art print.

Explain selected ideas or parts from the story in his or her own words.

Draw a picture and/or write a sentence showing what happened before and after a passage or illustration found in the book. (visualizing)

Predict what could happen next in the story before the reading of the entire book is completed.

Construct a pictorial time-line that summarizes what happens in the story.

Explain how the main character felt at the beginning, middle, and /or end of the story.

Blooms Level III: Application

Solve problems in new situations by applying acquired knowledge, facts, techniques and rules in a different, or new way.

Keywords:

apply, build, choose, construct, develop, interview, make use of, organize, experiment with, plan, select, solve, utilize, model, identify

Questions:

- How would you use...? • How would you solve ___ using what you've learned...?
- What examples can you find to...? • How would you show your understanding of...?
- How would you organize _____ to show...?
- How would you apply what you learned to develop...?
- What approach would you use to...? • What other way would you plan to...?
- What would result if...? • Can you make use of the facts to...?
- What elements would you use to change...? • What facts would you select to show...?
- What questions would you ask during an interview?

Assessment:

Classify the characters as human, animal, or thing.

Transfer a main character to a new setting.

Make finger puppets and act out a part of the story.

Select a meal that one of the main characters would enjoy eating: plan a menu, and a method of serving it.

Think of a situation that occurred to a character in the story and write about how he or she would have handled the situation differently.

Give examples of people the student knows who have the same problems as the characters in the story.

Blooms Level IV: Analysis

Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations.

Keywords:

analyze, categorize, classify, compare, contrast, discover, dissect, divide, examine, inspect, simplify, survey, test for, distinguish, list, distinction, theme, relationships, function, motive, inference, assumption, conclusion, take part in

Questions:

- What are the parts or features of . . . ? • How is _____ related to . . . ?
- Why do you think . . . ? • What is the theme . . . ? • What motive is there . . . ?
- Can you list the parts . . . ? • What inference can you make . . . ?
- What conclusions can you draw . . . ? • How would you classify . . . ?
- How would you categorize . . . ? • Can you identify the different parts . . . ?
- What evidence can you find . . . ? • What is the relationship between . . . ?
- Can you make a distinction between . . . ? • What is the function of . . . ?
- What ideas justify . . . ?

Assessment:

Identify general characteristics (stated and/or implied) of the main characters.

Distinguish what could happen from what couldn't happen in the story in real life.

Select parts of the story that were the funniest, saddest, happiest, and most unbelievable.

Differentiate fact from opinion.

Compare and/or contrast two of the main characters.

Select an action of a main character that was exactly the same as something the student would have done.

Blooms Level V: Synthesis

Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions.

Keywords:

build, choose, combine, compile, compose, construct, create, design, develop, estimate, formulate, imagine, invent, make up, originate, plan, predict, propose, solve, solution, suppose, discuss, modify, change, original, improve, adapt, minimize, maximize, theorize, elaborate, test, happen, delete

Questions:

- What changes would you make to solve...? • How would you improve...?
- What would happen if...? • Can you elaborate on the reason...?
- Can you propose an alternative...? • Can you invent...?
- How would you adapt _____ to create a different...?
- How could you change (modify) the plot (plan)...? • What facts can you compile...?
- What way would you design...? • What could be combined to improve (change)...?
- Suppose you could _____ what would you do...? • How would you test...?
- Can you formulate a theory for...? • Can you predict the outcome if...?
- How would you estimate the results for...? • What could be done to minimize (maximize)...?
- Can you construct a model that would change...? • How is _____ related to...?
- Can you think for an original way for the...? • What are the parts or features of...?
- Why do you think...? • What is the theme...? • What motive is there...?
- Can you list the parts...? • What inference can you make...? ...? • What ideas justify...?
- What conclusions can you draw...? • How would you classify...?
- How would you categorize...? • Can you identify the different parts...?
- What evidence can you find...? • What is the relationship between...?
- Can you make the distinction between...? • What is the function of

Assessment:

Create a story from just the title before the story is read (pre-story exercise).

Write three new titles for the story that would give a good idea what it was about.

Create a poster to advertise the story so people will want to read it.

Use your imagination to draw a picture about the story.

Create a new product related to the story.

Restructure the roles of the main characters to create new outcomes in the story.

Compose and perform a dialogue or monologue that will communicate the thoughts of the main character(s) at a given point in the story.

Imagine that you are the main character. Write a diary account of daily thoughts and activities.

Create an original character and tell how the character would fit into the story.

Write the lyrics and music to a song that one of the main characters would sing if he/she/it became a rock star and perform it.

Blooms Level VI: Evaluation

Present and defend opinions by making judgments about information, validity of ideas or quality of work based on a set of criteria.

Keywords:

award, choose, conclude, criticize, decide, defend, determine, dispute, evaluate, judge, justify, measure, compare, mark, rate, recommend, rule on, select, agree, appraise, prioritize, opinion, interpret, explain, support importance, criteria, prove, disprove, assess, influence, perceive, value, estimate, deduct

Questions:

- Do you agree with the actions/outcome...? • What is your opinion of...?
- How would you prove/ disprove...? • Can you assess the value or importance of...?
- Would it be better if...? • Why did they (the character) choose...?
- What would you recommend...? • How would you rate the...?
- How would you evaluate...? • How would you compare the ideas...? the people...?
- How could you determine...? • What choice would you have made...?
- What would you select...? • How would you prioritize...? • How would you justify...?
- What judgment would you make about...? • Why was it better that...?
- How would you prioritize the facts...? • What would you cite to defend the actions...?
- What data was used to make the conclusion...?
- What information would you use to support the view...?
- Based on what you know, how would you explain...?

Assessment:

Decide which character in the selection he or she would most like to spend a day with and why.

Judge whether or not a character should have acted in a particular way and why.

Decide if the story really could have happened and justify reasons for the decision.

FOUR LEVELS OF QUESTIONING

LEVEL 1: Summarizing/Definition/Fact questions

- What is the definition of ... ?
- Who did ... ?
- When did ... occur?
- How much/many ... ?
- What is an example of ... ?

LEVEL 2: Analysis/Interpretation questions

- How did ... occur?
- Why does ... occur?
- What are the reasons for ... ?
- What are types of ... ?
- How does ... function?
- How does the process occur?
- What are my own examples of ... ?
- What causes ... to occur?
- What results when ... occurs?
- What is the relationship between ... & ... ?
- How is ... similar to/different from ... ?
- How does ... effect or apply to ... ?
- What does ... mean?
- What conclusions can be drawn from ... info?
- What is (are) the problem(s), conflict(s), or issue(s)?
- What are possible solutions/resolutions to these problems, conflicts or issues?
- What is the main argument or thesis?
- How is this argument developed?
- What evidence, proof, support is offered?
- What are other theories, arguments from other authors?

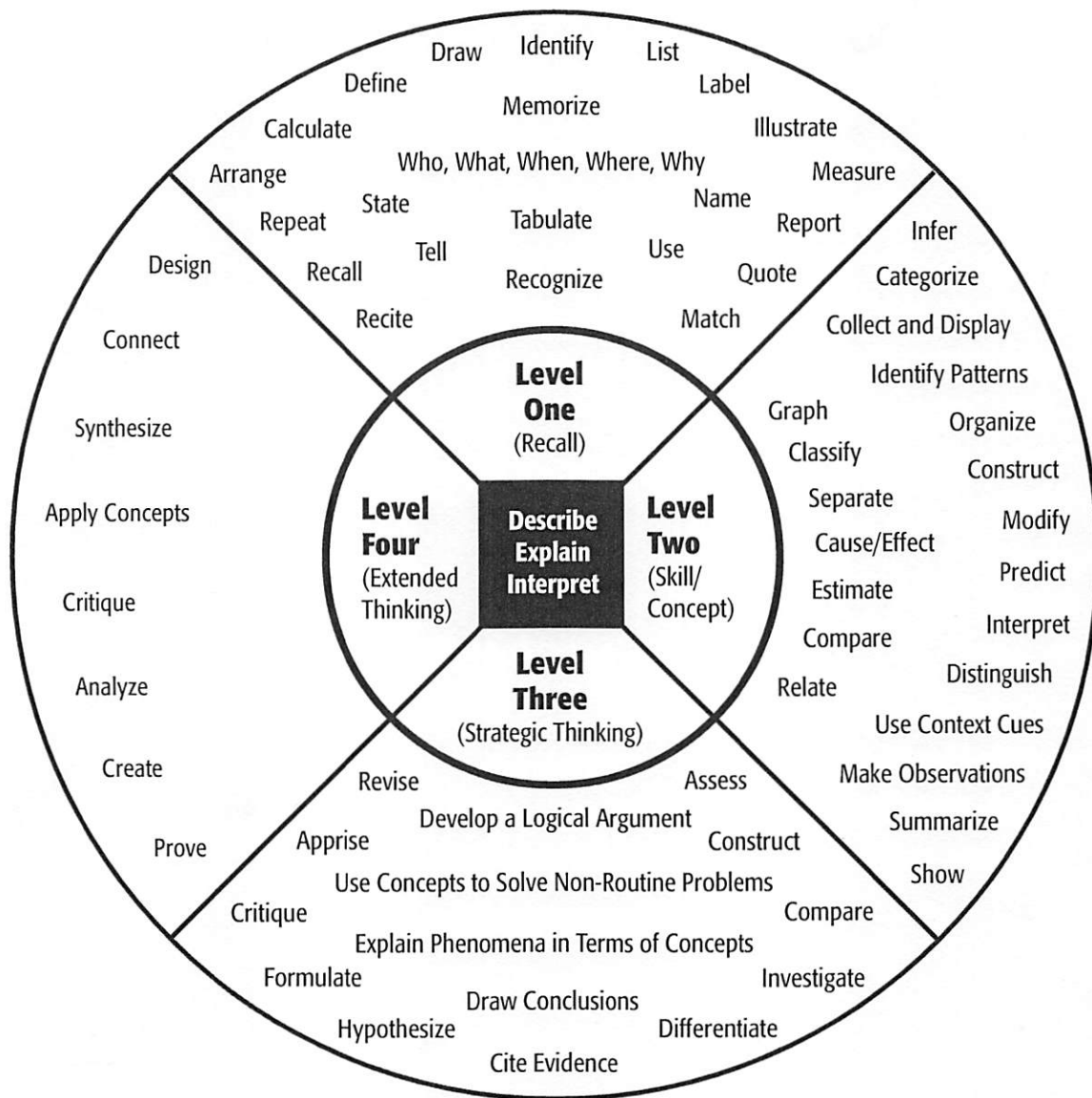
LEVEL 3: Hypothesis/Prediction questions

- If ... occurs, then what would happen?
- If ... changed, then what would change?
- What does theory X predict will happen?
- What hypothesis or theory explains this data or given information?

LEVEL 4: Critical Analysis/Evaluation/Opinion questions

- Is ... good/bad? ... correct/incorrect? ... effective/ineffective? ... relevant/irrelevant? ... logical/illogical? ... applicable/not applicable? ... proven/not proven? ... ethical/unethical? **WHY?**
- What are the advantages or disadvantages of ... ? **WHY?**
- What is the best solution to the problem, conflict or issue? **Why** is it the best?
- What should or should not happen? **WHY?**
- Do I agree or disagree? **WHY?**
- What is my opinion? What is my support for my opinion?

Depth of Knowledge (DOK) Levels



Level One Activities	Level Two Activities	Level Three Activities	Level Four Activities
<p>Recall elements and details of story structure, such as sequence of events, character, plot and setting.</p> <p>Conduct basic mathematical calculations.</p> <p>Label locations on a map.</p> <p>Represent in words or diagrams a scientific concept or relationship.</p> <p>Perform routine procedures like measuring length or using punctuation marks correctly.</p> <p>Describe the features of a place or people.</p>	<p>Identify and summarize the major events in a narrative.</p> <p>Use context cues to identify the meaning of unfamiliar words.</p> <p>Solve routine multiple-step problems.</p> <p>Describe the cause/effect of a particular event.</p> <p>Identify patterns in events or behavior.</p> <p>Formulate a routine problem given data and conditions.</p> <p>Organize, represent and interpret data.</p>	<p>Support ideas with details and examples.</p> <p>Use voice appropriate to the purpose and audience.</p> <p>Identify research questions and design investigations for a scientific problem.</p> <p>Develop a scientific model for a complex situation.</p> <p>Determine the author's purpose and describe how it affects the interpretation of a reading selection.</p> <p>Apply a concept in other contexts.</p>	<p>Conduct a project that requires specifying a problem, designing and conducting an experiment, analyzing its data, and reporting results/solutions.</p> <p>Apply mathematical model to illuminate a problem or situation.</p> <p>Analyze and synthesize information from multiple sources.</p> <p>Describe and illustrate how common themes are found across texts from different cultures.</p> <p>Design a mathematical model to inform and solve a practical or abstract situation.</p>

DOK Question Stems

<p>DOK 1</p> <ul style="list-style-type: none"> • Can you recall ____? • When did ____ happen? • Who was ____? • How can you recognize ____? • What is ____? • How can you find the meaning of ____? • Can you recall ____? • Can you select ____? • How would you write ____? • What might you include on a list about ____? • Who discovered ____? • What is the formula for ____? • Can you identify ____? • How would you describe ____? 	<p>DOK 2</p> <ul style="list-style-type: none"> • Can you explain how ____ affected ____? • How would you apply what you learned to develop ____? • How would you compare ____? Contrast ____? • How would you classify ____? • How are ____ alike? Different? • How would you classify the type of ____? • What can you say about ____? • How would you summarize ____? • How would you summarize ____? • What steps are needed to edit ____? • When would you use an outline to ____? • How would you estimate ____? • How could you organize ____? • What would you use to classify ____? • What do you notice about ____?
<p>DOK 3</p> <ul style="list-style-type: none"> • How is ____ related to ____? • What conclusions can you draw ____? • How would you adapt ____ to create a different ____? • How would you test ____? • Can you predict the outcome if ____? • What is the best answer? Why? • What conclusion can be drawn from these three texts? • What is your interpretation of this text? Support your rationale. • How would you describe the sequence of ____? • What facts would you select to support ____? • Can you elaborate on the reason ____? • What would happen if ____? • Can you formulate a theory for ____? • How would you test ____? • Can you elaborate on the reason ____? 	<p>DOK 4</p> <ul style="list-style-type: none"> • Write a thesis, drawing conclusions from multiple sources. • Design and conduct an experiment. Gather information to develop alternative explanations for the results of an experiment. • Write a research paper on a topic. • Apply information from one text to another text to develop a persuasive argument. • What information can you gather to support your idea about ____? • DOK 4 would most likely be the writing of a research paper or applying information from one text to another text to develop a persuasive argument. • DOK 4 requires time for extended thinking.